

ABSTRACT OF THE DISCLOSURE

Vending machine product is moved by the use of an "X-Y mechanism" having two stationary electronically controlled drive "motors". These motors drive (directly or indirectly) tension elements (belt, chain, cable, etc.) that position horizontally and vertically sliding components. A separation and selection system uses a "rotator" to release a product from a tray and a "gate" to separate the products into two columns on the tray. A "lever" (centered by springs) mechanically links these components. Products move off the tray by a spring powered "slider" (one slider for each product column) on the tray. There is only one "rotator-gate-lever" mechanism per pair of product columns in each display tray. That is, when a "cup" engages the "lever" moving to the right, a product from the left side of the display tray is pushed into the "cup" and vice versa. Adjustable side walls in each tray accommodate different sized packages. The delivery mechanism uses the "cup" for transport. A lower surface of the cup engages a sliding "door" to a balanced delivery "port" for delivery of product from the cup to the port. Delivery is made from the cup to the port simultaneously with the opening of the door.